

REMARKS/ARGUMENTS

In the present Office action, claims 1-17 are pending. Claims 1, 2, 4, 6-10, and 12-17 were rejected. Claims 3, 5, and 11 were objected to. By this amendment, all of claims 1-17 are believed to be in condition for allowance.

Objections to abstract and drawing

The examiner objected to the use of the word "comprising" in the abstract. The abstract has been amended herein to recite the word "comprises". The abstract is now believed to be in condition for allowance.

The examiner noted numerous informalities with the drawings. Specifically, the examiner objected to the black boxes 12, 14 in FIG. 1 and required labeling as to their function. In FIG. 1, the black boxes have been annotated to note "CONTROL MECHANISM", and "STORAGE MEDIUM", 12 and 14, respectively.

Claim Rejections under 35 U.S.C. 112

The examiner rejected claim 13 as being indefinite for failing to particularly point out and distinctly claim the subject matter of the present invention. Specifically, the examiner noted that the language "means for identifying extracting" was unclear. In response, Applicants have amended claim 13 in accordance with the examiner's objection to read "means for identifying and extracting". Claim 13 is now believed to be in condition for allowance.

Claim Rejections under 35 U.S.C. 102

The examiner rejected claims 1, 6-10, and 12-17 as being anticipated by Emer (US 6,380,512). The examiner notes that Emer discloses a method of laser drilling cooling holes in a turbine blade using a laser, providing a camera, capturing a first image of the target hole, moving the target hole and capturing a second image and computing a drilling location by determining the actual location of the drilling hole.

Applicants respectfully disagree with the examiner's characterization of Emer. Specifically, the present invention is drawn to a stereovision guided laser drilling process. By its very nature, stereovision implies, and in fact requires, two separate images in order to compute the three dimensional coordinates of an observed feature. This is made clear in claim 1 wherein there is claimed "capturing a first image of said target hole at said first position with said camera", and "moving said target hole to a second position and capturing a second image of said target hole..." As is evident, the present invention requires the capturing of two images.

In contrast to the characterization of Emer by the examiner, Emer most emphatically does not involve the capturing of two images. The examiner is quite specific to cite column 3, lines 33-45 as reciting a teaching of Emer, specifically the capturing of a first and second image. In fact, Emer teaches no such thing at column 3 or anywhere else. In fact, Emer specifically recites at column 3, lines 37-39 "The vision processor of the machine vision system will then analyze the image to determine the actual location for each cooling hole and store this location in the memory..." (emphasis added). It is quite obvious that Emer involves the capturing of one, and only one, image. As a result, it is not possible for Emer to teach

the present invention drawn as it is to the use of stereovision analysis.

Because Emer fails to teach in any manner the central elements of claim 1 of the present invention, Applicants respectfully traverse the examiner's grounds for rejection with respect to claim 1. Claim 1 is therefore believed to be in condition for allowance. As all of claims 6-9 are dependent upon claim 1, claim 1 now believed to be in condition for allowance, claims 6-9 are likewise believed to be in condition for allowance. Both independent claims 10 and 14 similarly recite the need for capturing two images. As a result, claims 10 and 14 are likewise believed to be in condition for allowance. As claims 12, 13, and 15-17 are dependent upon claims 10 and 14, claims 10 and 14 believed to be in condition for allowance, these claims are likewise believed to be in condition for allowance.

Claim Rejections under 35 U.S.C. 103

The examiner rejected claim 2 as being unpatentable over Emer in view of Muller et al. (US 6,615,099). The examiner further rejected claim 4 as being unpatentable over Emer in view of Muller et al. and further in view of Zhang (US 2003/0222984). As both claims 2 and 4 depend upon claim 1, claim 1 believed to be in condition for allowance for the reasons noted above, claims 2 and 4 are likewise believed to be in condition for allowance. Applicants therefore respectfully traverse the examiner's grounds for rejection with respect to claims 2 and 4.

Claim Objections

The examiner objected to claims 3, 5, and 11 as being dependent upon a rejected base claim but noted that they would

be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. For the reasons noted above, claims 3, 5, and 11 are believed to be in condition for allowance in their present form.

Applicants request that the fee for a one (1) month extension of time request be charged to Deposit Account No. 21-0279.

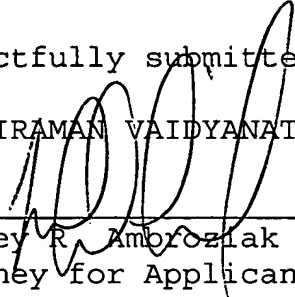
An earnest and thorough attempt has been made by the undersigned to resolve the outstanding issues in this case and place same in condition for allowance. If the Examiner has any questions or feels that a telephone or personal interview would be helpful in resolving any outstanding issues which remain in this application after consideration of this amendment, the Examiner is courteously invited to telephone the undersigned and the same would be gratefully appreciated.

It is submitted that the claims as amended herein patentably define over the art relied on by the Examiner and early allowance of same is courteously solicited.

If any additional fees are required in connection with this case, it is respectfully requested that they be charged to Deposit Account No. 21-0279.

Respectfully submitted,

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Date: September 29, 2004

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: "Mailstop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on September 29, 2004


Antoinette Sullio

Amendments to the Drawings:

Please replace the drawing with the replacement drawing.